Exhibit 1

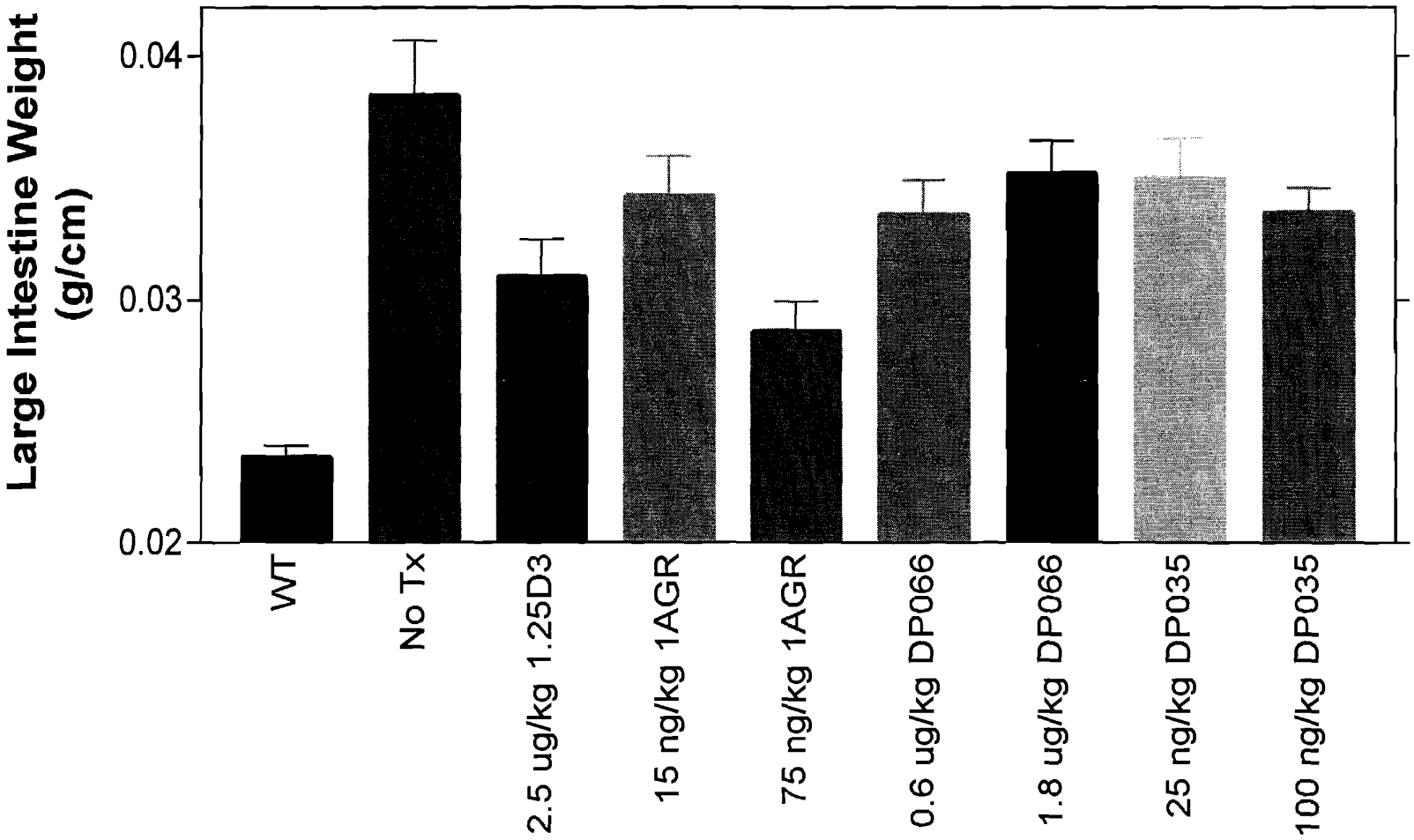
Comparison of Vitamin D Analogs in Mouse IBD Model

Brief Summary of Methods

- Several vitamin D compounds were tested in a mouse model of inflammatory bowel disease (IL10 knockout mice treated with piroxicam to accelerate and synchronize disease)
- After disease was established, compounds were given to mice (n=13 mice per treatment group) mixed in an agar diet for approximately 4 weeks
- Efficacy was measured separately by two parameters (1) large intestinal weight and (2) histopathological score (as assessed by an independent pathologist, who was blinded to the treatment group assignments)

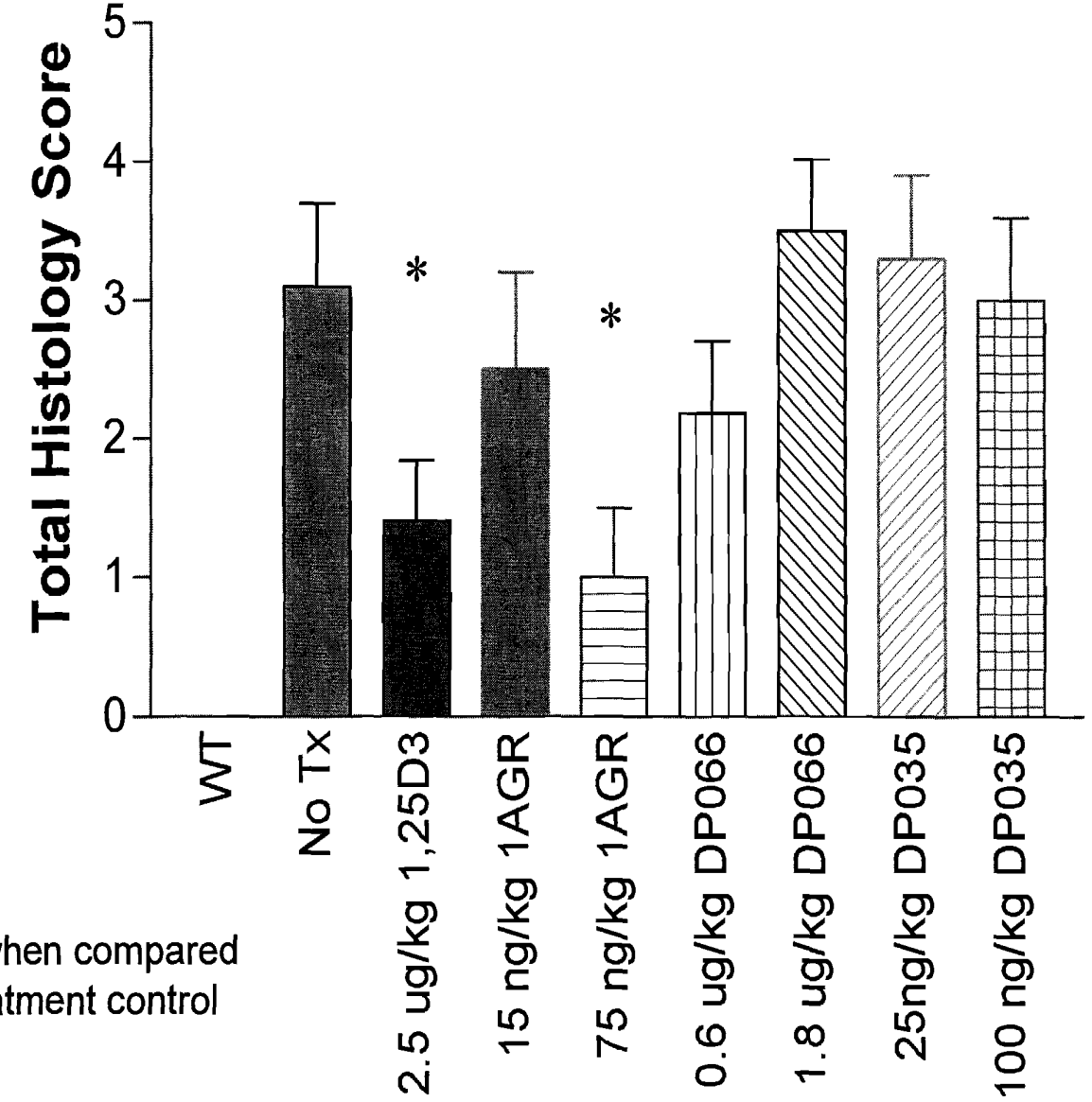
Brief Summary of Results

- As expected, 1,25D3 treatment resulted in decreased inflammatory bowel disease relative to the no treatment control group as assessed by large intestine weight as well as histopathological score
- The compound 1AGR also resulted in a dose-dependent decrease in disease as assessed by large intestine weight as well as histopathological score
- However, 2 other compounds tested, DP035 and DP066, did not reduce inflammatory bowel disease significantly by either assessment. At the higher dose, DP066 did show a statistically significant increase in serum calcium, indicating that the drug was being delivered to the mice.



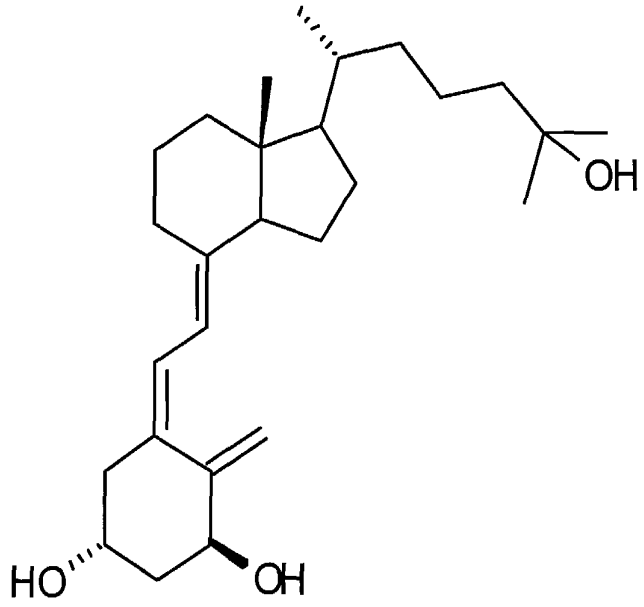
Final Serum Ca	8.9 ±0.1	9.8 ±0.1	12.4 ±0.2	9.5 ±0.2	13.5 ±0.2	9.1 ±0.2	9.7 ±0.3	9.2 ±0.3	10.6 ± 0.2

Exp. 14/16/17
Total Histology Score



P<0.05 when compared to no treatment control group

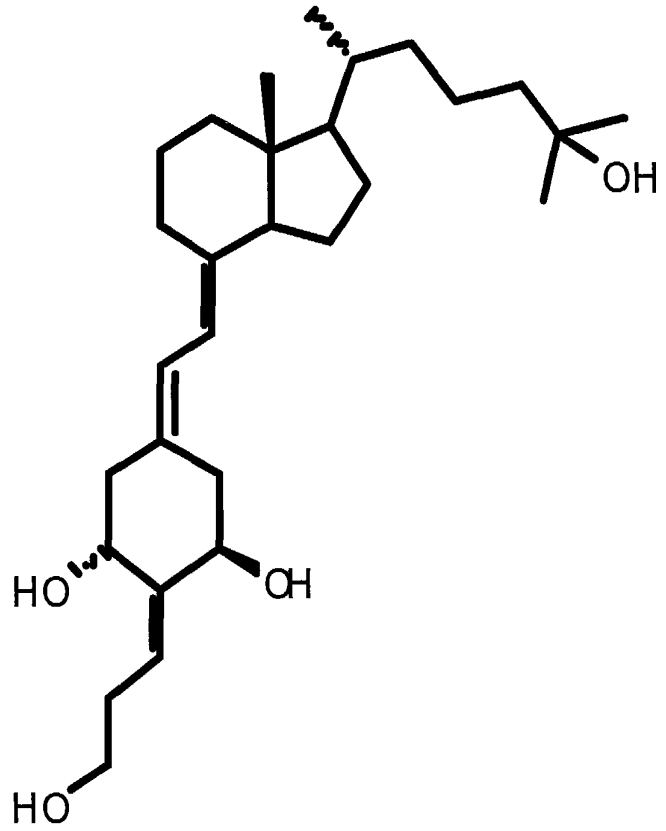
1α,25-dihydroxy-vitamin D3



Molecular Weight = 416.65

DP029 (or 1AGR)

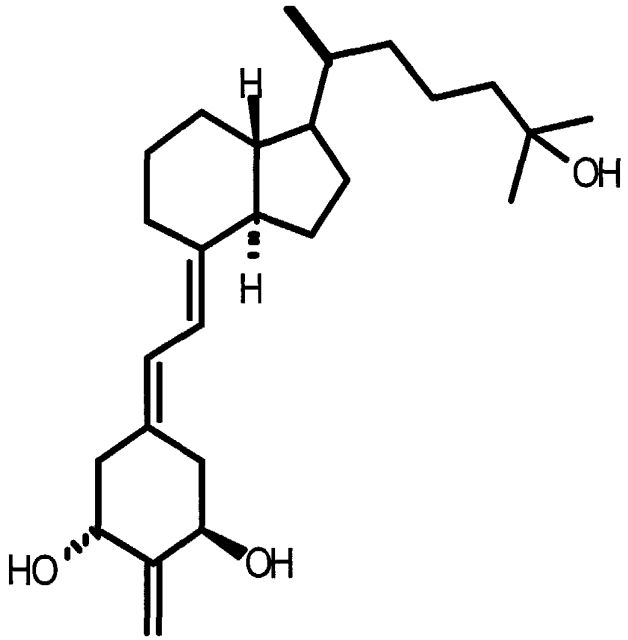
2-(3'-hydroxypropylidene)-19-nor-1a,25-(OH)2D3 (E-isomer)



Molecular Weight = 460.70

DP035 (VD-03)

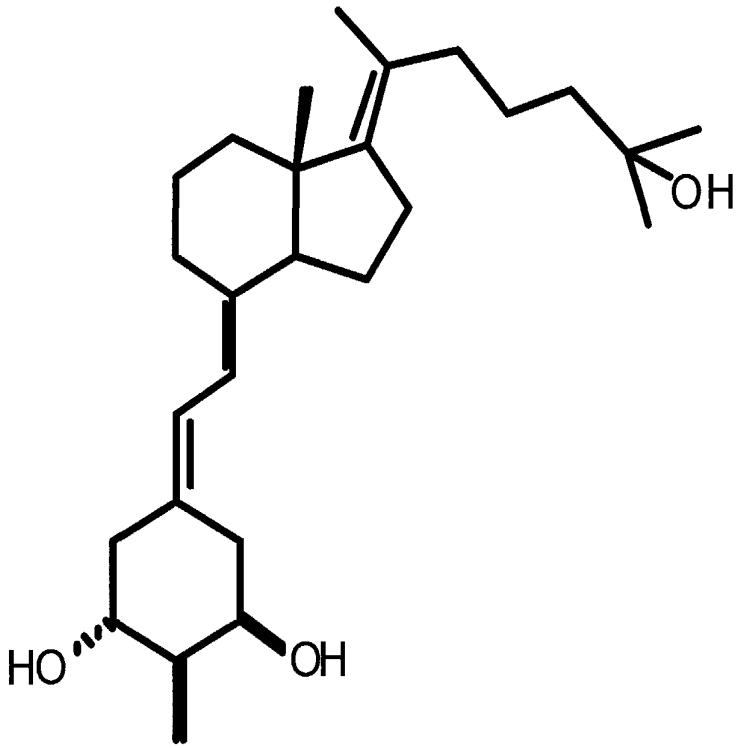
2-methylene-18,19-dinor-(20S)-1a,25-dihydroxyvitamin D3



Molecular Weight = 402.62

DP066 (or Vit-III 17-20E)

2-methylene-1a,25-dihydroxy-(17E)-17(20)-dehydro-19-norvitamin D3



Molecular Weight = 414.63